FIG. 1

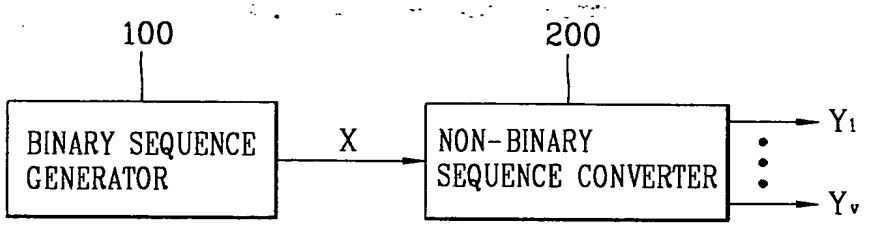

100
200
BINARY SEQUENCE GENERATOR
X
NON-BINARY SEQUENCE CONVERTER
Y1
Yv

FIG. 2

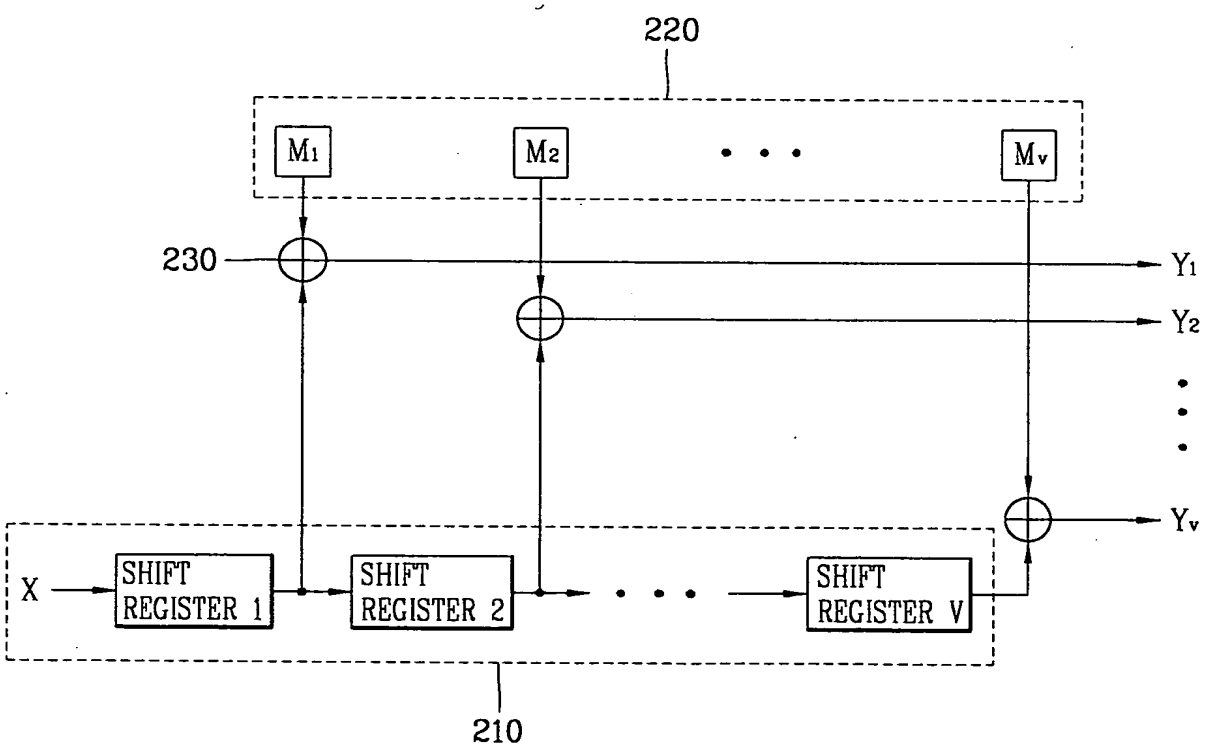

220
M1
M2
Mv
230
Y1
Y2
Yv
X
SHIFT REGISTER 1
SHIFT REGISTER 2
SHIFT REGISTER V
210

FIG. 3

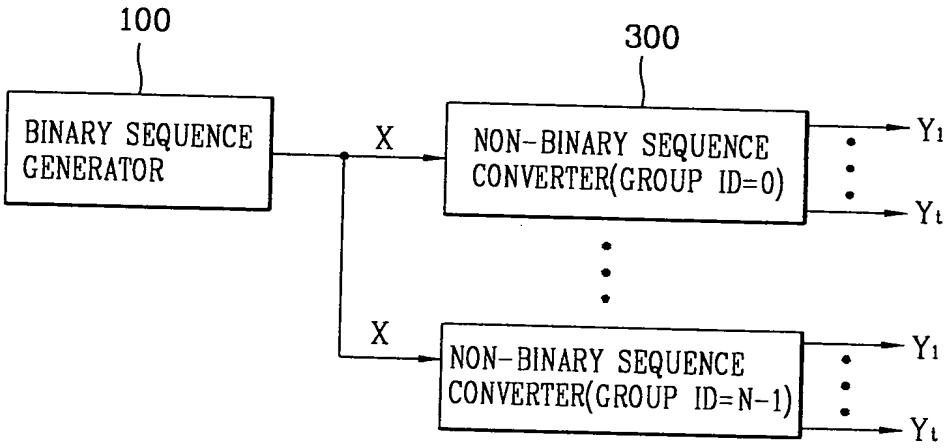

100
300
BINARY SEQUENCE GENERATOR
X
NON-BINARY SEQUENCE CONVERTER(GROUP ID=0)
NON-BINARY SEQUENCE CONVERTER(GROUP ID=N-1)
Y1
Yt

FIG. 4

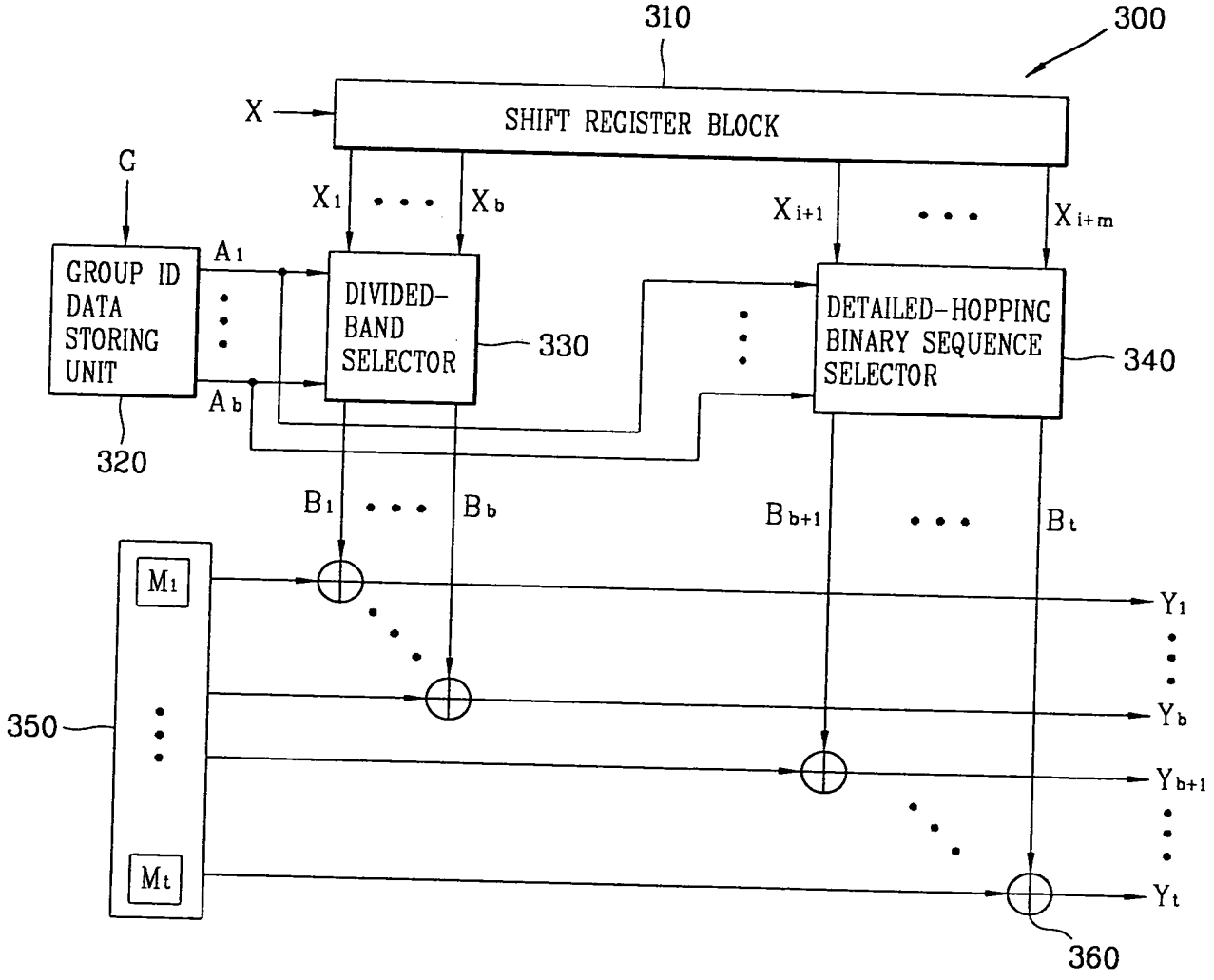

310
300
X
SHIFT REGISTER BLOCK
G
X1
Xb
Xi+1
Xi+m
GROUP ID DATA STORING UNIT
320
A1
Ab
DIVIDED-BAND SELECTOR
330
DETAILED-HOPPING BINARY SEQUENCE SELECTOR
340
B1
Bb
Bb+1
Bt
M1
Mt
350
Y1
Yb
Yb+1
Yt
360

FIG. 5

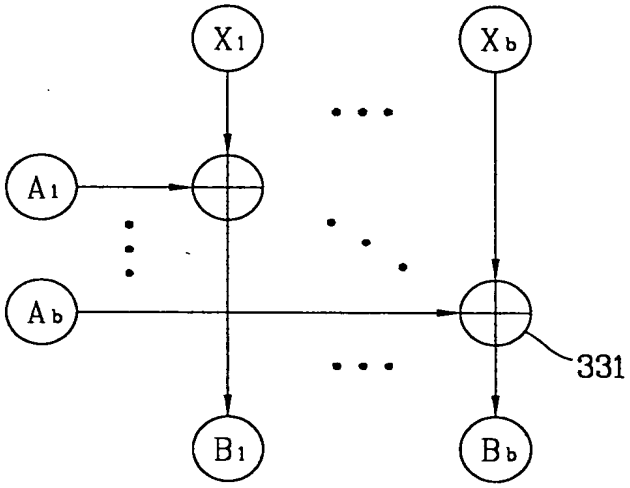
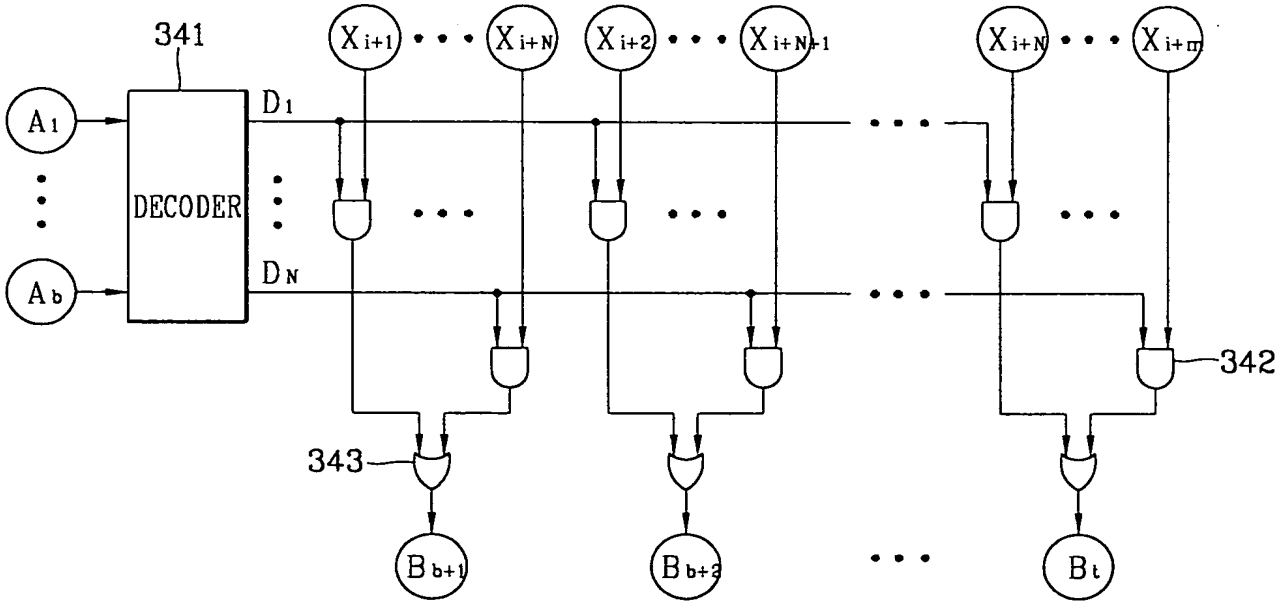

X1
Xb
A1
Ab
331
B1
Bb

FIG. 6


341
Xi+1
Xi+N
Xi+2
Xi+N+1
Xi+N
Xi+m
A1
Ab
DECODER
D1
DN
342
343
Bb+1
Bb+2
Bt